

CORVINUS UNIVERSITY OF BUDAPEST

CEWP 05/2020

New life for an old
framework:
redesigning the
European Union's
expenditure and
golden fiscal rules

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<http://unipub.lib.uni-corvinus.hu/5976>

New life for an old framework: redesigning the European Union's expenditure and golden fiscal rules

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7 October 2020

Abstract

In the context of the review of the EU economic governance framework, this study recommends a multi-year ahead expenditure rule anchored in an appropriate public debt target, augmented with an asymmetric golden rule that provides extra fiscal space only in times of a recession. An improved governance framework should strengthen national fiscal councils and include a European fiscal council, while financial sanctions should be replaced with instruments related to surveillance, positive incentives, market discipline and increased political cost of non-compliance.

Keywords: expenditure rule, golden rule, structural budget balance

JEL codes: H20, E62

This study was prepared for the European Parliament's Committee on Economic and Monetary Affairs. The study is available on the European Parliament's online database ([https://www.europarl.europa.eu/RegData/etudes/STUD/2020/645733/IPOL_STU\(2020\)645733_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2020/645733/IPOL_STU(2020)645733_EN.pdf)), 'ThinkTank' (<https://www.europarl.europa.eu/thinktank/en/home.html>). Copyright remains with the European Union at all times. The opinions expressed in this document are the sole responsibility of the authors and do not necessarily represent the official position of the European Parliament.

The authors are grateful to Youssef Salib for research assistance and thank several colleagues from the Economic Governance Support Unit of the European Parliament, DG ECFIN of the European Commission and the Secretariat of the European Fiscal Board for helpful comments and suggestions.

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LIST OF ABBREVIATIONS

CAM	Commonly agreed methodology (for estimating potential output)
EB	Expenditure benchmark
EFB	European Fiscal Board
EU	European Union
EUFC	European Fiscal Council
GDP	Gross domestic product
IMF	International Monetary Fund
MTO	Medium-term objective (for the structural budget balance)
MTPOGR	Medium-term potential output growth rate
OECD	Organisation for Economic Co-operation and Development
SCP	Stability or Convergence programmes
SB	Structural budget balance
SGP	Stability and Growth Pact

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EXECUTIVE SUMMARY

Background

The European Union's fiscal rules are subject to intense intellectual debate. The European Commission is currently reviewing the EU economic governance framework, including fiscal surveillance.

Main findings

- In accordance with EU law, the expenditure benchmark (EB) is subordinate to the structural balance (SB). The EB matters only when a country's SB is lower than its medium-term objective (MTO). We find that in practice the SB is always preferred over the EB.
- We find that the Commission has adopted a generally lenient approach in cases of conflict between the EB and SB criteria, in the preventive arm of the Stability and Growth Pact.
- Estimates of the structural budget balance are subject to enormous uncertainty, while uncertainty is minor in the estimates of medium-term potential growth.
- We find that the Commission's revised estimates of May 2020 are much more pro-cyclical for the structural budget balance than for the medium-term potential growth¹.
- There are many good reasons to reform the EU fiscal framework and there is an emerging consensus in the literature on the benefits of an expenditure rule.
- Even in 2019, general governments' net investment (which is gross investment minus the depreciation of capital stock) on average in the EU was just a fraction of investment in the United States and United Kingdom (as a share of GDP). Some countries with low public debts invest little, which seems to be a political choice not related to fiscal rules. It is an open question whether fiscal rules or market pressure influence public investment in high-debt countries in times of fiscal consolidation.
- The usefulness of the current EU investment clause is questionable.
- Views on the desirability of a golden rule differ.
- The institutional framework for overseeing the rules is as important as the rules themselves.

Recommendations

We recommend changing the EU fiscal framework to include the following main elements:

¹ A pro-cyclical revision means that the estimate is revised in the same direction as the revision of the economic outlook.

- Anchor: five-year ahead or seven-year ahead debt ratio change objective, to be set by a joint effort of the government of the country concerned, the national fiscal council, the European Fiscal Council and the European Commission, and be approved by the Council;
- Operational target: multi-year ahead ceilings for public expenditure corrected for discretionary² unemployment expenditure, interest expenditure and discretionary revenue changes, while public investment is treated as discussed in the next point;
- Public investment: an asymmetric golden rule that excludes net public investment from the considered expenditure aggregate only in bad times, in a way to create extra fiscal space. This extra fiscal space would be gradually eliminated as the recovery strengthens;
- Current and investment budgets should be separated, and investment costs would be distributed over the entire service-life. Activation of the asymmetric golden rule should not be based on unreliable estimates of the output gap, but on the contraction of economic output, and the opinion of national and European fiscal councils and the European Commission;
- The ceiling for the operational target should be compatible with the debt ratio objective;
- Institutional framework: strengthened independent national fiscal councils with increased minimum standards and establishment of a European Fiscal Council with a structure similar to the European Central Bank's Governing Council, while the Commission remains the institution that proposes recommendations to the Council of Ministers for adoption;
- Financial sanctions: to be replaced with various instruments related to surveillance, positive incentives, market discipline³ and increased political cost of non-compliance; and
- A general escape clause: instead of the current general escape clause and the additional complex web of exceptions, a single general escape clause (possibly applied to each member state separately) could be triggered by the Council of Ministers, based on the recommendation of the Commission, which will take into account the opinions of the independent national fiscal council and the European Fiscal Council.

² Discretionary changes refer to changes resulting from the decisions of the authorities.

³ Market discipline means that the interest rate at which governments can borrow from the market is sensitive to markets' assessment of public debt sustainability, that is, interest rates go up as markets' trust in fiscal sustainability weakens.

1. INTRODUCTION

The European Union's fiscal framework, which originated in the Maastricht Treaty in 1992 and was then set out in the Stability and Growth Pact in 1997, has been subject to intense discussion and several waves of reform. The latest legislative reforms comprised the so-called 'Six-Pack' (2011) and 'Two-Pack' (2013) legislation, and the so-called Fiscal Compact (2012), which is part of the Treaty on Stability, Coordination and Governance. A number of further adjustments have been made to the framework, before and after the legislative wave of 2011-2013⁴.

In this context, the European Commission is currently reviewing the EU economic governance framework, including fiscal surveillance under the Six-Pack and Two-Pack legislation (European Commission, 2020a).

In theory, EU fiscal rules are conducive to all the three main goals of a fiscal framework: public debt sustainability, counter-cyclical macro-economic stabilisation, and protecting the quality of public finances. In practice, however, several Member States have fallen short of these goals. In these countries, the reduction of the public debt-to-GDP ratio has been insufficient, the rules have allowed pro-cyclical fiscal policies, and growth-enhancing public investment was cut during economic recessions.

The EU fiscal framework also suffers from extreme complexity and allows for a large number of exceptions and escape clauses. The fiscal framework strongly relies on the estimates of governments' structural budget balances, which is an indicator of the budget's underlying position that excludes the impact of economic cycles (such as smaller tax revenues and larger unemployment benefit pay-outs in a recession) and one-off budgetary measures (such as bail-outs of banks or temporary tax measures). While the structural budget balance is a useful theoretical concept, this indicator is not observable and its estimation is subject to wide margins of error.

Since 2011, fiscal surveillance has also relied on an expenditure benchmark (EB) which caps public expenditure growth in order to help countries meet their structural budget balance objectives. Furthermore, since 2015 the fiscal framework includes a limited golden rule, called the 'investment clause', which allows certain national co-financing of EU-related projects to be excluded from the fiscal indicators for temporary periods, under strict conditions⁵.

At the request of the European Commission President, the European Fiscal Board (EFB) presented its contribution to the ongoing review of the Six-Pack and Two-Pack legislation EFB (2019a). The EFB proposed a simplification of the fiscal rules by focusing on a modified expenditure rule and a golden rule. The EFB's proposal shares many similarities with other proposals, such as Carnot (2014), Andrieu *et al* (2015), Claeys *et al* (2016), Benassy-Quéré *et al* (2018), Feld *et al* (2018), Darvas *et al* (2018) and OECD (2018).

⁴ See at: https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/timeline-evolution-eu-economic-governance_en

⁵ See Section 3.2.2 for details.

The goal of this briefing paper is not to provide a comprehensive assessment of the EU fiscal framework, but to focus on two particular issues.

First, we examine whether an expenditure rule would be more reliable than a structural budget balance rule as the main operational tool for fiscal policy surveillance in the EU. This assessment is based on the concepts of the expenditure rule and the structural balance rule as currently defined in the EU fiscal framework, but we also consider alternative formulations of the expenditure rule suggested in the literature. In particular, we examine the counter-cyclical benefits of expenditure rules and assess whether some of the pro-cyclical effects of the EU's past fiscal-policy recommendations to Member States could have been avoided, had they relied on an expenditure rule rather than the structural balance rule.

Second, we assess the possible benefits and drawbacks of introducing a golden rule to exclude certain types of investment from the operational fiscal rule.

We analyse the uncertainty in output gap, structural balance and medium-term potential growth estimates, and assess to what extent the revisions in the May 2020 European Commission economic forecast were pro-cyclical⁶. We review academic and institutional contributions on expenditure rules, structural balance rules and golden rules, including those suggested by the EFB. Our assessment particularly focuses on the impact of an expenditure rule and a golden rule on pro-cyclical policies.

We conclude our study with some reflections on the ability of a fiscal framework, including the current framework and a framework based on an expenditure rule and a golden rule, to provide guidance in case of a large exogenous shock and its aftermath, such as is currently being experienced with the coronavirus pandemic.

⁶ See Section 3.1.2 for the definition of pro-cyclical revisions.

2. THE ROLE OF THE STRUCTURAL BALANCE AND THE EXPENDITURE BENCHMARK IN THE EU FISCAL FRAMEWORK

In addition to the two EU Treaty-based fiscal limits, namely the 3 percent of GDP budget deficit and the 60 percent of GDP gross public debt, the EU fiscal framework includes numerical targets for the structural balance and public expenditures. Section 2.1 briefly introduces the structural balance rules, while Section 2.2 explores the expenditure benchmark and its role. Section 2.3 describes the conditions for compliance with the adjustment path toward the medium-term budgetary objective (MTO) under the preventive arm of the Stability and Growth Pact. Finally, Section 2.4 argues that the “structural balance change” criterion is preferred to the expenditure benchmark in the Commission’s practice, based on research of the EFB and our new research.

2.1. Structural balance rules

In accordance with the current fiscal framework, the structural budget balance (that is, the budget balance that excludes the impact of the economic cycle and one-off fiscal measures) must be higher than the country-specific MTO, which, in the case of EMU countries, has to be chosen at or above -0.5 percent of GDP, or -1 percent for countries with a debt-to-GDP ratio below 60 percent. If the structural balance is lower than the MTO, it must increase by 0.5 percent of GDP per year as a baseline, while the required magnitude depends on the economic cycle and the level of public debt (Table 1). Throughout this study, we refer to this rule as ‘structural balance change rule’, which is often referred by the Commission as ‘required fiscal adjustment’ or ‘required structural effort’.

Table 1: Required annual fiscal adjustment depending on the state of the economy and public debt

	Condition	Required annual fiscal adjustment (pp of GDP)	
		Debt \leq 60% and low/medium sustainability risks*	Debt $>$ 60% or high sustainability risks
Exceptionally bad times**	Real growth < 0 or output gap < -4	No adjustment needed	
Very bad times**	$-4 \leq$ output gap < -3	0	0.25
Bad times	$-3 \leq$ output gap < -1.5	0 if growth below potential, 0.25 if growth above potential	0.25 if growth below potential, 0.5 if growth above potential
Normal times	$-1.5 \leq$ output gap < 1.5	0.5	> 0.5
Good times	Output gap ≥ 1.5	> 0.5 if growth below potential, ≥ 0.75 if growth above potential	≥ 0.75 if growth below potential, ≥ 1 if growth above potential

Source: page 17 of the 2019 Vade Mecum (European Commission, 2019b).

2.2. The expenditure benchmark

The expenditure benchmark (EB) was introduced in the 2011 six-pack reform as an additional indicator used to assess compliance with the preventive arm of the SGP⁷. Compliance with the EB aims at moving countries towards or maintaining their MTO, as explained below. Three alternative cases can be distinguished⁸:

- *Member States at their MTO* (i.e. structural balance level = MTO) must ensure that a measure of expenditures does not increase beyond their country's medium-term potential economic growth rate (" g "), unless the increased spending is matched by discretionary revenue increases. Note that, in this case, the EB does not reflect any required improvement, but is simply indicative of the maximum growth rate of net expenditures compatible with the Member State remaining at the MTO.
- *Member States below their MTO* (i.e. structural balance level < MTO), and thus on their adjustment path towards the MTO, must ensure that a measure of their expenditures grows at a slower pace than g , unless the increased spending is matched by discretionary revenue increases.
- *When Member States exceed their MTO* (i.e. structural balance level > MTO), the EB is not taken into consideration in the assessment of the compliance with EU fiscal rules, unless the overachievement resulted from significant revenue windfalls or the budgetary plan laid out in the stability programme risks falling below the MTO.

The expenditure aggregate excludes interest expenditures, expenditures on Union programmes fully matched by Union funds revenue and non-discretionary changes in unemployment benefit expenditure.

In 2016, the Commission and the Council agreed to update the SGP in a joint opinion (Economic and Financial Committee, 2016). The innovations introduced include (i) giving more prominent role to the EB when assessing compliance in the preventive arm of the SGP and (ii) incorporating the EB into the corrective arm of the SGP⁹.

The first innovation introduced the EB as part of the adjustment requirements, alongside changes concerning the structural balance. Until then, the EB was only used in assessing compliance, not in setting adjustment requirements (which were defined exclusively in terms of the structural balance). Since that opinion, adjustment requirements are defined in terms of changes in both the structural balance and the EB.

The 2016 opinion also clarified what should be done in cases where the structural balance and EB produce conflicting results. While the two indicators are theoretically equivalent, they often differ in practice¹⁰. Indeed, they are implemented by using different aggregates and data inputs

⁷ The Commission proposed to replace the SB with EB, but Member States preferred to keep both.

⁸ See section 1.3.6 of the Vade Mecum on the Stability and Growth Pact European Commission (2019b).

⁹ See Section 2.2.1 of EFB (2018) for details.

¹⁰ See Box II.2.1 of European Commission (2011) for a proof of the theoretical equivalence.

(ECA, 2018). To deal with conflicting cases, the opinion calls for an “overall assessment”, which practically means applying judgement and choosing the most reliable indicator (EFB, 2018). Note that this clarification simply formalised what was already the common Commission’s practice.

The second innovation incorporated the EB into the corrective arm of the SGP. Until then, the fiscal targets under the corrective arm of the Pact were expressed in structural balance and nominal balance terms only. Since the 2016 opinion, countries found to have an excessive deficit are required to define an EB target (in addition to their nominal and structural budget balance targets). This EB target limits the growth of government expenditure, so as to move countries under the corrective arm towards their nominal and structural budget balance targets¹¹.

However, as noted in EFB (2018), it is not clear what happens in cases of conflict between the different corrective arm targets, i.e. when the EB suggests non-compliance while the structural balance suggests compliance, or vice versa. The new rule for the corrective arm still needs to be tested in practice, as it applies to excessive deficit procedures instigated since 2017. As no excessive deficit procedure has been launched since 2017, it is not possible to assess the implementation of the EB rule in the corrective arm.

According to the Commission spring 2020 forecast, 26 EU countries will have a budget deficit larger than 3% of GDP in 2020 and 13 countries in 2021 and therefore many excessive deficit procedures will likely be launched once the pandemic-induced suspension of fiscal rules will be revoked. Then it will be interesting to observe the implementation of the EB in the corrective arm.

2.3. Assessing compliance with the adjustment path towards the MTO¹²

For Member States that do not achieve their MTO, compliance with the preventive arm of the SGP requires them to be on the adjustment path towards the MTO – as defined in terms of changes in the SB and the EB indicators. Ex ante, finding significant deviation is a warning. Ex post, observed significant deviation acts as the trigger for a Significant Deviation Procedure.

Member States are compliant with the adjustment path if both indicators are respected. If either one of the adjustment path indicators is not respected, then, and as described above, discretion is advised in choosing the indicator deemed most reliable – this is the so-called ‘overall assessment’ (see Table 2).

The overall assessment can conclude that there is compliance, or some deviation, or a significant deviation from the requirements. Assigning “significant deviation status” requires that at least one adjustment path indicator be in significant deviation. If significant deviation is observed on

¹¹ Note however that the computation of EB under the corrective arm (compared to the budgetary targets set by the Council) differs from the computation of EB in the preventive arm (compared to medium-term growth rate of potential output). The methodological discrepancy leads to material differences in practices. See Section 2.2.1 of EFB (2018) for details.

¹² This section summarises the procedures set out in the Vade Mecum on the Stability and Growth Pact (European Commission, 2019).

both indicators, then significant deviation is presumed. However, even in this case, an overall assessment is required before significant deviation status is assigned.

Table 2: Assessments under the preventive arm

Δ SBal Dev. from the EB	Adjustment delivered	Deviation	Breach of the threshold of significance
Benchmark Respected	Compliance	<i>Need an overall assessment</i> (cannot lead to a Significant Deviation Procedure)	<i>Need an overall assessment</i> (can lead to a Significant Deviation Procedure)
Deviation	<i>Need an overall assessment</i> (cannot lead to a Significant Deviation Procedure)	<i>Need an overall assessment</i> (cannot lead to a Significant Deviation Procedure)	<i>Need an overall assessment</i> (can lead to a Significant Deviation Procedure)
Breach of the threshold of significance	<i>Need an overall assessment</i> (can lead to a Significant Deviation Procedure)	<i>Need an overall assessment</i> (can lead to a Significant Deviation Procedure)	<i>Need an overall assessment, but strong presumption of significant deviation</i> (can lead to a Significant Deviation Procedure)

Source: Vade Mecum on the Stability and Growth Pact (European Commission, 2019b).

Note: the expression “threshold of significance” refers to cases when (i) the deviation of the structural balance from the appropriate adjustment path is at least 0.5% of GDP in one single year or at least 0.25% of GDP on average per year in two consecutive years; and/or (ii) an excess of the rate of growth of expenditure net of discretionary revenue measures over the appropriate adjustment path defined in relation to the reference medium-term rate of growth has had a negative impact on the government balance of at least 0.5 of a percentage point of GDP in one single year, or cumulatively in two consecutive years.

2.4. Privileging the structural balance

In accordance with Regulation (EU) N.o.1175/2011, which established the expenditure benchmark (EB), the EB has a subordinate status relative to the structural balance (SB), because the EB is only used to evaluate sufficient progress towards the MTO, or in the rare case when a country is exactly at the MTO. The EB does not matter once a country has a higher structural balance than the MTO¹³.

Even in cases where a country has not yet reached its MTO (i.e. structural balance level < MTO), research by the EFB finds that the Commission and the Council have privileged the structural budget balance when assessing compliance with the adjustment path, even though, since the

¹³ Unless there was a “significant revenue windfall” or if the budgetary plan formulated in the stability programme risks falling below the MTO. We note, however, that a significant revenue windfall must be taken into account in the estimation of the structural balance, so it seems redundant to include such a clause in the Regulation.

2016 opinion, the two indicators should be given equal weight before an overall assessment is made.

The EFB (2018 and 2019) highlighted that the Commission adopted *ad hoc* adjustments to the expenditure benchmark when it was in conflict with the structural balance change rule. In particular, in the cases of Portugal and Slovenia, the Commission questioned the appropriateness of potential output estimates based on the Commonly Agreed Methodology (CAM) and used alternative *ad hoc* output gap estimations to corroborate its conclusion, which was more lenient than what the expenditure benchmark based on the CAM would have concluded.

Slovenia would have been non-compliant without these adjustments. For Portugal the conclusion was: *"There is currently no sufficient ground to conclude on the existence of an observed significant deviation in Portugal in 2018"*¹⁴. Yet, in the same document, the Commission projects a *"significant deviation"* for both 2019 and 2020 for Portugal. This example shows how even a relaxed EB can be subordinated to the structural balance rule in practice.

To complement the EFB's findings, which presented a qualitative analysis of some cases for the Commission's assessment of Member States' compliance with the preventive arm of the Stability and Growth Pack, we quantitatively analysed all the assessments published in the 2015-2019 surveillance cycles. We focused on ex post compliance assessments (for example, the assessments made in 2019 of compliance in 2018). Our analysis is included in the Annex. We find that in all 6 cases when, in 2014-2018, the EB was breached but the SB change rule was not, the conclusion was more lenient than what the EB suggested. Among the 14 cases when the SB change rule was breached, but the EB not in 2014-2018, the conclusion was more lenient than what the structural balance suggested in 12 cases. Furthermore, in the three cases when one of the indicators suggested "significant deviation", no Significant Deviation Procedure was launched.

Certainly, the goal of the overall assessment is to consider various factors. Yet the fact that in the vast majority of cases when the two indicators delivered conflicting results, the conclusion from the more binding indicator is disregarded, suggests a very lenient approach in the assessment of compliance with adjustment path requirements. This finding has an important implication for a possible reform of the SGP to focus on an expenditure rule: in case of a reform, the expenditure rule should be taken much more seriously than the recent lenient consideration of the EB in the preventive arm of the SGP.

We also note some changes regarding the Commission's reporting practices in the annual assessments of the SCPs:

- In 2014-2015, we find multiple cases where the structural balance change indicator is reported, while the EB is not. In all but one such cases, Member States exceed their MTO (i.e. structural balance level > MTO). In the remaining case, the Member State was below MTO (i.e. structural balance level < MTO), but in compliance with the structural balance change indicator.

¹⁴ See: https://ec.europa.eu/info/sites/info/files/economy-finance/22_pt_sp_assessment_0.pdf

- In 2014-2016, the two adjustment path indicators were sometimes reported, even when Member States exceed their MTO, but not always. The reporting practice appears ad hoc.
- From 2017 onwards, the two adjustment path indicators are never reported when Member States exceed their MTO (i.e. structural balance level > MTO). They are reported only when Member States are at or below their MTO.

We recommend that Member States always report their EB and the corresponding expenditure aggregate in the Stability or Convergence Programmes, including when the MTO has been exceeded. We recommend the Commission to indicate the EBs in its assessment of the Stability or Convergence Programmes. While, in accordance with legislation, the EB does not matter for compliance when the structural balance exceeds the MTO, the EB and the corresponding expenditure aggregate provide important information as to the medium-term sustainability of the supposedly-favourable fiscal position, because an expenditure path much higher than potential growth might undermine fiscal sustainability.

3. PROPOSALS FOR EXPENDITURE RULE AND GOLDEN RULE

Various proposals have been made for revising the European fiscal framework so that it focuses more, or only, on an expenditure rule combined with a debt target. A few proposals have also been made for the introduction of a golden rule that excludes certain public investments from the operational rule. The European Fiscal Board has also made such proposals (EFB 2018, 2019a, 2019b).

In Section 3.1, we assess whether an expenditure rule would be more reliable than a structural budget balance rule as the main operational tool for fiscal policy surveillance in the EU. This is followed by the assessment of the possible benefits and drawbacks of a golden rule in the EU fiscal framework and our proposal for an asymmetric golden rule in Section 3.2. However, we highlight that these rules should be considered in the broader context of the institutional framework for monitoring, incentivising and enforcing compliance, which is the subject of Section 3.3. Finally, we offer some remarks on fiscal rules in the context of a major external shock in Section 3.4.

3.1. Expenditure rule

Several authors have proposed refocusing the EU fiscal framework on a modified expenditure rule, while at the same time simplifying the complexity of the fiscal framework and introducing new institutional solutions for compliance. Examples include Carnot (2014), Andrle *et al* (2015), Claeys *et al* (2016), Benassy-Quéré *et al* (2018), Feld *et al* (2018), Darvas *et al* (2018), OECD (2018), and EFB (2018, 2019a, 2019b). The gist of these proposals is the same: set a properly designed expenditure rule as the main operational target, leading to an appropriate medium-term public debt level target. That is, nominal expenditures (net of discretionary revenues measures) should not grow faster than medium-term nominal output, and they should grow at a slower pace in

countries with excessive debt levels¹⁵. Such a rule would not prohibit new government priorities on spending and revenues, but would constrain them. For example, if a new government is elected on the basis of an increased expenditure programme, that it is possible as long as the excess expenditures are matched by discretionary revenue increases. Or if the government wishes to cut taxes, then they should be compensated by reduced expenditures.

Several authors propose to include the expenditure rule in a multi-annual framework, so that the rule would define multi-year-ahead ceilings for the level of expenditures, not just a limit on annual percent changes.

At the same time, these proposals differ in the elements of the current fiscal framework they propose to keep, or in their suggested institutional set-up for implementation and control.

3.1.1. Arguments for reforming the EU fiscal framework and refocusing it on an expenditure rule

We see the following main arguments for reforming the fiscal framework, and in particular, for focusing on an expenditure rule:

- the current framework is too complex, raising questions about **ownership, transparency, predictability, consistency** across countries and time, and on whether national policymakers **internalise** the EU framework;
- the current framework relies on **unobserved variables** (potential output, the medium-term potential growth rate, output gap and structural balance) which are subject to great uncertainty and estimation revisions, undermining the suitability of real-time fiscal decision-making^{16, 17};

¹⁵ 'Discretionary' (as opposed to 'automatic' resulting from changes in economic activity) revenue and expenditure measures denote measures which result from changing certain parameters of revenues and expenditures. For example, a tax rate cut or narrowing the tax base are discretionary reductions in revenues, while e.g. a reduction in revenues resulting from lower GDP is non-discretionary (i.e. automatic) reduction in revenues. Similarly, increase in unemployment benefit payments due to higher unemployment is a non-discretionary (automatic) increase, while e.g. an increase due to increasing the duration, the replacement rate or coverage are discretionary measures.

¹⁶ In a background work to this study, we found that the average one-year-after revision in real-time European Commission estimates for the change in the SB (using the EU's Commonly Agreed Methodology) was between half and one percent of GDP in the 2010-2019 period, which is very large given that the baseline fiscal adjustment requirement is half a percent of GDP for countries not yet at their MTO. The range of the SB level estimates of the Commission, IMF and OECD is 1.0-1.2% of GDP, suggesting large uncertainty. Results are available from the authors upon request.

¹⁷ Note that the ex-ante analysis by the Commission (e.g. an estimate made in May 2019 for the whole calendar year 2019) assumes no change in fiscal policy. Revisions of estimates can occur if fiscal policy changes (e.g. a supplementary budget is adopted in the summer of the analysed year).

- the uncertainty in the estimates of **medium-term potential growth rate** (i.e. 10-year average), which is used for the EB, is much smaller than the uncertainty in the estimates of levels and changes of SB¹⁸;
- the estimation of SB relies on estimates of **structural revenue** too, which are distorted by revenue windfalls or shortfalls, because actual revenue elasticities are highly volatile in practice (Mourre, Poissonnier and Lausegger, 2019);
- ex-post, estimates of SB turned out to be much more **pro-cyclical** than estimates of medium-term potential growth (see the next section), which has led to pro-cyclical fiscal tightening in many occasions, potentially lengthening recessions, even though the current set of rules is conducive to counter-cyclical fiscal policy in theory;¹⁹;
- **when a recession lingers for several years**, EU fiscal rules allow for the slow-down or postponement of fiscal consolidation. However, economic arguments might call for a repeated fiscal stimulus, which is not allowed by the EU fiscal rules;
- in case of **hysteresis effects**, pro-cyclical tightening in a recession can undermine the growth potential and thereby hinder the achievement of the budget deficit and debt reduction goals of fiscal tightening;
- rules do not restrain fiscal policies well **in good times**, thereby some countries may enter a recession with a vulnerable fiscal position;
- **compliance** with the rules has been weak, which might signal low trust in the rules;
- rules were not able to protect the **quality of the composition of public spending**, and in particular, to prevent public investment from being penalised in recessions;
- **enforcement** of the rules has been weak, as various flexibility clauses are regularly applied and excessive deficit procedures were not launched against countries with high debt

¹⁸ Errors made in the estimation of SB and EB have implications for fiscal policy actions and hence for the actual budget balance. For example, suppose a first estimation shows that the SB in year T is forecast in T-1 as -1% of GDP, when the MTO is 0%, and hence the government has to implement fiscal consolidation. If it turns out later that SB was 0% in year T, then fiscal consolidation was in vain and the actual budget deficit could have been larger in year T (and in subsequent years too). Similarly, if the medium-term potential growth rate is initially overestimated, then the corresponding growth of expenditure would lead to a higher budget deficit than planned, which will have to be corrected in later years if the medium-term potential growth rate is revised. Thus, an important question is budget balance implications of SB and EB estimation errors. In a background work to this study, we found, using average revision values in 2010-2018, that the budget balance implications of SB revisions is more than 5-times larger than that of the medium-term potential growth rate revisions. We also found that the range of the medium-term potential growth estimates of the Commission, IMF and OECD is about 0.2-0.3 percentage point, which is much narrower than the differences in SB estimates. These unpublished results are based on the background calculations to this study and are available from the authors upon request.

¹⁹ Research also concluded that the so-called 'fiscal multiplier', which measures the impact of fiscal consolidation on output, is larger in a recession than in an expansion (e.g. Auerbach and Gorodnichenko, 2012; Blanchard and Leigh, 2013). This implies that in a recession, fiscal policy consolidation can deepen the recession more significantly than the impact of the same fiscal consolidation in an expansion phase.

ratios and insufficient pace of debt reduction when their nominal budget deficit was less than 3 percent of GDP;

- the current framework increasingly relies on a **bilateral process of fiscal surveillance**, which discourages multilateral peer reviews;
- the difficulties in enforcing a highly complex, non-transparent and error-prone system **exposes the Commission to criticism** from countries with both strong and weak fiscal fundamentals;
- public expenditures are under the **direct control of governments**, while the structural balance is not;
- the current framework places too much emphasis on **annual**, rather than longer-term performance indicators.

Certainly, European fiscal rules are not the only culprit for fiscal misbehaviour. National institutions, national fiscal rules and a stability-oriented fiscal culture matter perhaps even more, as several EU countries with low public debt ratios demonstrate. But EU fiscal rules play a very important role in countries with weaker national institutions when these national institutions do not ensure stability-oriented policies. EU fiscal rules can also play important roles for countries with stronger institutions when a guidance is sought in a deep recession.

3.1.2. Pro-cyclical of structural balance and potential growth estimates

An estimate is pro-cyclical if it varies in line with the economic cycle. For example, a potential output estimate for a particular year is pro-cyclical if potential output is seen higher in economic booms than in economic downturns. A concrete example might help to understand this phenomenon: 2019 was a year of economic expansion, while 2020 is a year of economic contraction. The 2018 level of potential output was estimated to be significantly larger in 2019 than in 2020, thereby the estimate of the 2018 output gap made in 2020 is significantly larger than the estimate made in 2019. For example, the 2018 French output gap was estimated at 0.36% of potential output in May 2019 and 0.96% in May 2020. The corresponding estimates for the 2018 Danish output gap were -0.46% in May 2019 and -0.03% in May 2020²⁰. In this section we explore whether these revisions are due to revision of historical output data or resulted from the estimation methodology. While we analyse European Commission estimates, we highlight that most if not all other institutions estimating potential outputs and structural balances also revise their estimates in a pro-cyclical manner.

Such pro-cyclical of estimates has important implications for the structural balance rules. In an expansionary phase, the level of potential output seems higher, thereby the output gap seems lower and the structural balance higher. If the structural balance is used as the major guideline of fiscal policymaking, then deficits and debt levels are not reduced as much as they should be.

²⁰ The source of the May 2019 forecast is: https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/spring-2019-economic-forecast-growth-continues-more-moderate-pace_en. The source of the May 2020 forecast is: https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/spring-2020-economic-forecast-deep-and-uneven-recession-uncertain-recovery_en.

On the contrary, in a recession phase, the level of potential output seems lower, thereby the output gap higher and the structural balance lower. This induces more fiscal consolidation than the fiscal consolidation requirement would be in the absence of pro-cyclical estimates.

Moreover, pro-cyclicality of estimates could have perverse economic effects in the presence of hysteresis effects, if pro-cyclical estimates guide fiscal policy. That is, if fiscal tightening in a recession unduly results from a pro-cyclical estimate, then unemployment can increase. But unemployment, if persistent, might erode skills and lead to exits from the labour force, thereby reducing the quantity and quality of labour. In turn, this can deepen the recession and limit the speed of the subsequent recovery. Reduced innovation activities in a recession can also have lasting adverse effects on productivity.

Eyraud *et al* (2017) find that EU Member States, like many other countries, have pursued a pro-cyclical fiscal policy and prevented automatic stabilizers from operating freely. Dolls *et al* (2019) corroborate this finding as they concluded that while automatic stabilisers have played an important role in the early phase of the financial and economic crisis in 2008/2009, their countercyclical effect was partly offset in some Member States by a pro-cyclical fiscal stance in other years, in particular throughout the period 2011-2016.

However, Eyraud *et al* (2017) also find that while fiscal outcomes were pro-cyclical, the fiscal plans presented in the Stability or Convergence Programs were non-cyclical, in the sense that there was no statistically significant association between the planned change in the structural balance and the expected change in output gap. The different results for fiscal plans and fiscal outcomes further highlights the unsuitability of the structural balance as an operational target.

European Commission (2019a) also finds evidence of a pro-cyclical fiscal behaviour since 2000, implying that discretionary fiscal policy tightens in bad times and loosens in good times. At the same time, European Commission (2019a) also finds that the respect of fiscal rules seems to have mitigated the procyclicality of fiscal policy in the EU, by listing three circumstances which are associated with lower procyclicality: 1) meeting the requirements of the preventive arm of the SGP, 2) having lower headline deficits, and 3) having lower debt levels. European Commission (2020b) corroborates these findings. This leads to the question about the reasons for the lack of compliance by several Member States.

Fatás and Summers (2018) and Fatás (2019) find pro-cyclicality in estimates of potential output in the EU. They argue that a vicious circle might have been at work: low GDP growth after the great recession was seen as structural, so that potential output estimates were revised downward. This led policymakers to believe that further fiscal policy adjustments were needed. The successive rounds of fiscal contractions might have caused further reductions in potential output that validated the initial pessimistic estimates. Coibion *et al* (2018) also show that potential output estimates respond to demand shocks that only have transitory effects on output.

We find evidence of pro-cyclicality in potential output and structural balance estimates by looking at the May 2020 European Commission forecasts. Due to the coronavirus pandemic, GDP growth forecasts were massively revised downward for 2020, between 7 and 12 percentage point (difference between the May 2020 forecast and the May 2019 forecast for 2020). This is quite reasonable: the pandemic is an unforeseen external shock that dramatically impacts European

economies. In May 2019, the Commission forecasted that the EU27 economic will grow by 1.7% in 2020. A year later, in May 2020 the new forecast is -7.4%, so the revision of the EU27 the 2020 GDP growth rate is -9.1%, a really huge downward revision in the 2020 outlook. However, what happens in 2020 cannot impact economic developments in 2018, which has already passed. Thereby, a 2020 shock should not impact estimates of potential output and structural balance for 2018, but in practice it did, in a pro-cyclical way.

A partial reason for the revision of 2018 potential output and structural balance estimates is the revision of actual GDP data for 2018 and earlier years. Statistical offices sometimes refine their first data releases based on more detailed data and revise their methodologies, which lead to revisions in data. For example, Irish growth in 2018 was estimated 6.7% in May 2019, but 8.2% in May 2020 (see the tallest blue bar on the left of the first block of Figure 1). Obviously, the causes of potential output and structural balance revisions should distinguish between historical data revisions (which have no implications on possible pro-cyclicality of potential output estimates) and revisions resulting from the changed economic outlook (which has implications for pro-cyclicality). Therefore, in the rest of this section, we focus on the 16 countries for which historical GDP growth data (i.e. 2018 in this case) was not revised (or only to a very small extent, defined as less than 0.2 percentage points in absolute terms). While our focus is on these 16 countries, for completeness we report values for all 28 countries that were members of the European Union in 2018.

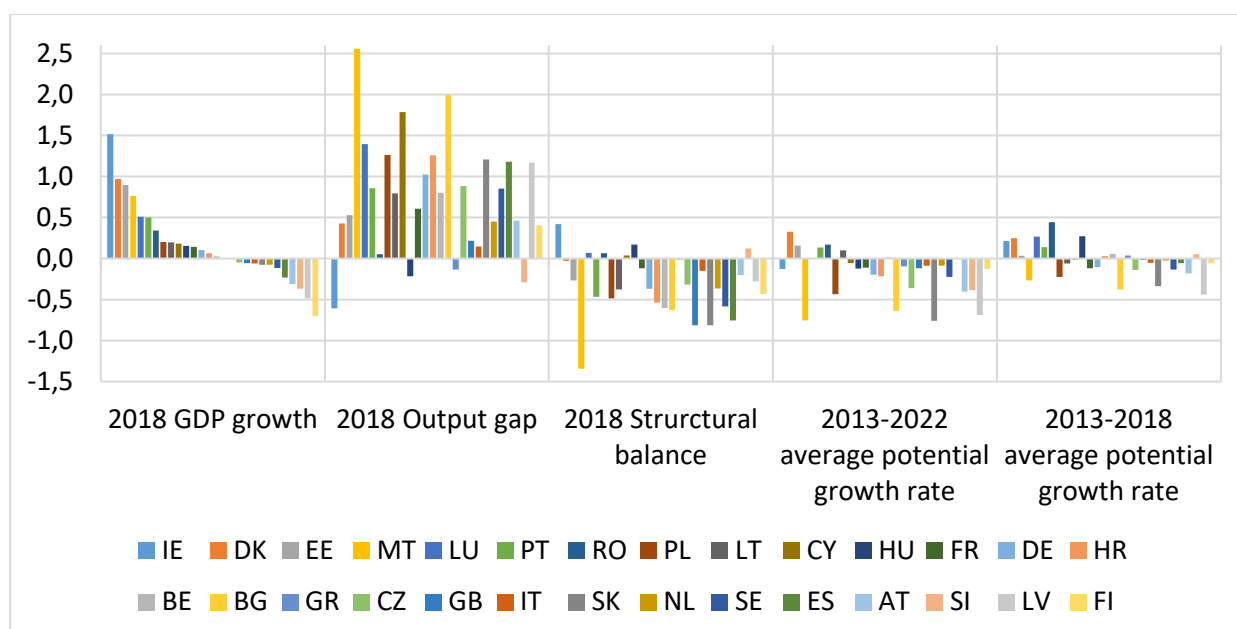
Since the COVID-19 pandemic caused a major negative economic shock in 2020 and led to downward revisions in earlier forecast levels of actual output for 2020 and beyond, and the CAM for estimating potential output also uses a sample extended by four years ahead with forecasts, it is not surprising that estimates of potential output (and related indicators like its medium-term growth rate, output gap, structural balance) were subject to pro-cyclical revisions, including estimates for 2018, but also for years before and after 2018²¹. The question we analyse is the magnitude of procyclicality of these estimated indicators and the impact of pro-cyclical revisions on the fiscal policy.

For the 16 countries without significant data revisions, the 2018 output gap estimate was revised upwards by 0.81 percentage point on average in May 2020 (compared to May 2019 estimates), while the corresponding revision of the 2018 structural balance is -0.37 percentage point (blocks 2 and 3 of Figure 1). That is, due to the pandemic external shock hitting the EU economy in 2020, the 2018 level of potential output is seen lower, thereby the 2018 output gap is seen higher and the 2018 structural balance is seen lower than a year earlier²². This is a pro-cyclical revision.

²¹ It is also possible that the 2020 pandemic reduces the 'true' level of potential output in 2020 and in subsequent years, if hysteresis effects are present or if it leads to pro-cyclical fiscal tightening, as we have discussed earlier in this section. Obviously, the 2020 pandemic cannot reduce the 'true' level of 2018 potential output, only its estimated value.

²² Note that these calculations consider only those 16 countries for which GDP data revisions were minor or zero, and hence not new GDP data, but the pandemic shock (which reduced GDP outlook for 2020 by more than 9% on average in the EU) is the main reason for potential output and structural balance revisions.

Figure 1: Revisions for 2018 – difference between May 2020 and May 2019 estimates



Source: calculations based on European Commission forecasts published in May 2020 and May 2019.

Note: values show the difference between May 2020 and May 2019 estimates for 2018. Countries are ordered according to the revision in actual GDP growth data for 2018. The 2018 medium-term potential growth for the expenditure benchmark refers to the average rate of potential growth in 2013-2022 (fourth block). The last block shows average potential growth rate revision in the alternative period of 2013-2018.

The 2018 medium-term potential growth is also revised downward for most countries in a pro-cyclical manner (blocks 4 and 5 of Figure 3). For calculating the EB, the 2018 medium-term potential growth rate is the average potential growth rate over 2013-2022, which also includes forecast values. Considering again the 16 countries for which historical GDP revisions were small, the 2018 medium-term potential growth rate (represented as the average of 2013-2022 growth) has been revised downward by 0.21 percentage point on average. Given that primary expenditures amount to about 45 percent of GDP on average in the EU, a 0.21 percentage point lower expenditure growth impacts the budget balance by 0.095 percentage point. This pro-cyclical impact is just a quarter of the pro-cyclical impact of the structural balance revisions.

Due to uncertainties in forecasts, we recommend excluding forecasted figures from medium-term potential growth calculations beyond the forecast made for the current year. That is, we recommend not to base calculations on the t-5 to t+4 period (e.g. from 2015 to 2024 in the 2020 analysis), but rather on the -5 to t period (e.g. from 2015 to 2020 in the 2020 analysis).

For the 2018 example, following this recommendation would have meant calculating average potential growth over 2013-2018. The revisions would be smaller in this case, as we can see from comparing the fourth and fifth blocks of Figure 3. Considering again the 16 countries for which historical GDP data revisions were small, the average downward revision of the 2013-2018 average potential growth rate was 0.075 percentage point. That is, considering that primary expenditure accounts for about 45% of GDP, the impact of this revision on the budget balance is 0.034 percentage points of GDP, which is just 1/11th of the impact of pro-cyclical structural balance revision.

Heimberger and Truger (2020) reach a similar conclusion on pro-cyclicality by making a detailed analysis of the revisions in German potential output, output gap and structural balance estimates. While the Commission forecasts that the German structural balance will be -0.5% of GDP in 2021, which might necessitate fiscal consolidation, without the pro-cyclical revision in potential output the structural balance forecast would have been a 0.2% surplus. Thus, Germany's fiscal space is reduced by 0.7% of GDP due to the pro-cyclical model-based estimates. They find that the effect of the German fiscal rules is even stronger than the European fiscal rule. If the suspension of the European and German fiscal rules will be revoked in 2021, the German government will be forced to cut its deficit earlier than it should²³.

3.1.3. Proposals of the European Fiscal Board

There are several proposals for a better fiscal framework that aim to address the problems described above. Among these, the one set forth by the European Fiscal Board (EFB) has a special importance, because the EFB is an independent advisory board of the European Commission and the President of the European Commission specifically asked the EFB in January 2019 to carry out an assessment of the current EU fiscal rules. We summarise and evaluate the EFB's proposal (EFB 2019a, 2019b), which includes the following four main elements:

- a single fiscal anchor: a debt ratio objective and a declining path towards it;
- a single indicator of fiscal performance: a ceiling on the growth rate of net primary expenditures for countries with public debt in excess of 60% of GDP, but not for countries with a lower debt ratio;
- a golden rule to exclude certain public investments from the expenditure aggregate subject to the ceiling;
- a general escape clause (possibly applicable for each country separately), parsimoniously applied and triggered on the basis of independent economic analysis, provided both by the independent fiscal institution of the country concerned and a more autonomous (than currently) Commission staff.

In this section, we focus on the expenditure rule proposal, while section 3.2.3 discusses the EFB's golden rule proposal.

The net expenditure aggregate proposed by the EFB excludes interest payments, non-discretionary unemployment benefit payments, and certain public investments under the golden rule. It is also adjusted to account for discretionary changes in government revenues. This proposal deviates from the current expenditure aggregate of the EB as it replaces the exclusion of expenditure on Union programmes fully matched by Union funds revenue with a limited golden rule²⁴.

²³ Methodological issues and results for further countries are discussed in Heimberger (2020).

²⁴ We review the limited golden rule proposal of the EFB in Section 3.2, yet we already draw the attention that it significantly differs from the current rule excluding only Union programmes fully matched by Union funds revenue.

To address the problem of short-termism resulting from the reliance on annual data, EFB (2019a, 2019b) proposes to set the ceiling of net expenditure growth for a period of three years and recalculate it thereafter. They also propose a 'compensation account' in which deviations from planned net primary expenditure growth are accumulated²⁵. Such a compensation account would be subject to some maximum and a requirement to de-cumulate in the case of windfall gain.

The ceiling for the growth rate of the net expenditure aggregate would be the trend rate of potential output growth, with correction calibrated to achieve the country-specific public debt ratio target (see below). Member States with a debt ratio below 60% of GDP would not be subject to a net expenditure ceiling, but would still have to observe the 3% nominal deficit threshold.

As regards the fiscal anchor, the gross public debt to GDP ratio, EFB (2019a, 2019b) proposes to eliminate the uniform rule for reducing the excess over the 60% threshold by 1/20th of the excess in each year. Instead, the EFB recommends country-specific debt targets for a seven-year period (coinciding with the duration of the EU's Multiannual Financial Framework) and a new multilateral agreement adopted by the Council. The EFB also proposes to incorporate considerations from the Macroeconomic Imbalances Procedure (MIP) and the assessment of the appropriateness of the euro area fiscal stance in the determination of the expenditure growth ceiling. Thereby, high-debt countries would commit to a net government expenditure path that reduces the debt ratio to the agreed target, while low-debt countries would commit to a binding net expenditure path, which would include growth-enhancing public investments with cross border effects. Countries with large current account deficits would commit to a lower public expenditure growth path, while countries with an excessive current account surplus would commit to a faster expenditure growth path.

In our assessment, the EFB (2019a, 2019b) proposal for an expenditure rule would lead to a marked improvement over the current rules, which excessively rely on the estimated structural balance, but we also recommend some modifications to it. We see the following advantages:

- Unlike the structural balance, public expenditures are observable in real time and are directly controlled by the government²⁶.
- While the basis for the benchmark for expenditure growth would be the medium-term potential rate of growth, which is subject to estimation errors, our background calculations for this study show that the typical revisions, the differences between the estimates by the European Commission, IMF and OECD, as well as the 2020 pro-cyclical

²⁵ The proposed 'compensation account' is similar to the 'adjustment account' proposed by, for example, Darvas *et al* (2018): "*Limited deviations between actual and budgeted spending could be absorbed by an 'adjustment account' that would be credited if expenditures net of discretionary tax cuts run below the expenditure rule, and debited if they exceed it. These types of accounts exist in Germany and Switzerland. If a country passes a budget with no excessive spending but realised spending is above the target, the overrun could be financed without a breach of the rule, provided that the deficit in the adjustment account does not exceed a pre-determined threshold (e.g. 1 percent of GDP). If the threshold has been breached, the country violates the fiscal rule.*"

²⁶ Concerning the current expenditure benchmark, European Court of Auditors (2018) also noted that "*Focus on the expenditure benchmark places a stronger emphasis on those policy levers directly controlled by government and it is more predictable than the SB indicator.*"

revisions, are markedly smaller for the medium-term potential growth rate than for the structural balance²⁷.

- The country-specific seven-year ahead debt reduction target, which is proposed to be used to set the ceiling of expenditure growth rate, lessens the importance of the medium-term potential growth rate in the determination of the multi-year ceiling²⁸.
- The multi-year ahead debt reduction target would also smooth the transition from the current framework to the new framework. Otherwise, countries that have similar debt levels and potential growth rates would be subject to similar expenditure limits, even if they have very different budget deficits. But the multi-year ahead country-specific debt reduction target would be set considering the starting economic and fiscal position of the country, considering a wide range of indicators and circumstances.
- We recommend, in line with Darvas *et al* (2018), that the country-specific debt reduction target be set by a joint effort of the government of the country concerned, the national fiscal council, the European Fiscal Council and the European Commission, and be approved by the Council (see further discussion of the institutional framework in Section 3.3).
- The expenditure rule has an ‘embedded’ cyclical stabilisation property: cyclical revenue increases have no effect on the expenditure ceiling – inducing stronger fiscal discipline in good times, compared to the current rules – and the rule does not require cyclical revenue shortfalls to be offset by lower expenditure in a downturn.
- The expenditure rule reduces an important source of pro-cyclicality of the current rules. Indeed, a large body of literature finds that the pro-cyclical bias in fiscal policy is strongly related to expenditures rather than revenues.

Examples for the last point include Turrini (2008), who found that pro-cyclical bias in good times is an entirely expenditure-driven phenomenon in the euro area and expenditure rules can be helpful to curb the expansionary bias of fiscal policy. Holm-Hadulla *et al* (2012) confirmed that expenditure rules reduce pro-cyclical bias. Based on literature surveys, Fabrizio and Mody (2010) and Darvas and Kostyleva (2011) gave the highest point to expenditure rules among the various fiscal rules when designing fiscal institution quality indices, supported by literature surveys. Andrieu *et al* (2015) proposed an expenditure rule for the EU, supported by literature review and model simulations. Belu Manescu and Bova (2020) confirm that while fiscal policy was indeed pro-cyclical in the EU over the 1999-2016 period, the magnitude of the pro-cyclical bias is lower in presence of expenditure rules. Moreover, they find that the better the expenditure rule design in terms of legal base, independent monitoring, consequences for non-compliance or coverage, the stronger the mitigating effect. European Commission (2020b) corroborates the finding of pro-cyclical fiscal policy since 2000 and that the procyclicality seems to be lower based on the

²⁷ Results are available from the authors upon request.

²⁸ This seven-year ahead debt reduction target proposal of EFB (2019a, 2019b) is rather similar to the five-year ahead debt reduction proposed by Darvas *et al* (2018).

expenditure benchmark than the change in the structural balance. Counterfactual simulations based on a small fiscal model suggests that strict compliance with the expenditure benchmark would have resulted in a slightly more growth-friendly adjustment compared with a strict compliance with the structural balance requirement. The reason for this is that compliance with the expenditure benchmark would have required a larger (smaller) fiscal adjustment in good (bad) times.

However, we also express some disagreements with the proposal of the EFB (2019a, 2019b). Specifically, EFB recommends that Member States with a debt ratio below 60% of GDP would not be subject to a net expenditure ceiling, but would still have to observe the 3% deficit rule. Countries with a public debt ratio below 60% of GDP also need an operational target, and we find the 3% deficit criterion not suitable. It is not conducive to any of the goals of a fiscal framework, i.e. long-term fiscal sustainability of the public debt, countercyclical fiscal policy in both good and bad times, and preserving the quality of public investment. Therefore, we recommend that the expenditure rule be the operational target, along with a country-specific medium-term debt target, for all EU countries.

We welcome the proposals of EFB for stronger economic and fiscal policy coordination in the EU, whereby macroeconomic imbalances and considerations for the aggregate fiscal stance of the euro area would be also considered when setting the desired path of public expenditures. However, we fear that disagreements over the causes and remedies of current account deficits and surpluses, as well as over the desired aggregate fiscal stance of the euro area, are so large that complicating the fiscal framework with such discussions would risk an inefficient and ineffective system.

3.1.4. Cyclical stabilisation by an expenditure rule

To illustrate the cyclical stabilisation property of an expenditure rule, we run a simple and non-comprehensive simulation. For each year, we calculate what a particular rule would have implied, using actual real-time data. We exclude from expenditures: interest payments, all unemployment benefit payments and one-off expenditures between 2009 and 2012 (e.g. bank rescues and other one-time costs). For calculating the expenditure ceiling, we use the six-year moving average of the potential rate of growth *plus* the 2% inflation objective of the ECB (as suggested by Claeys *et al*, 2016). We do not correct for discretionary revenue changes (due to lack of data). Our calculation is therefore partial due to the following reasons:

Actual aggregate:

- Our simulation is not a comprehensive counter-factual simulation, because the application of the expenditure rule in a year would have altered economic and fiscal outcomes (such as the level of public expenditure, GDP, public debt), which would have been different than what are actually observed in the data;
- We exclude all unemployment payments, not just discretionary ones;
- We do not correct for discretionary revenue changes;

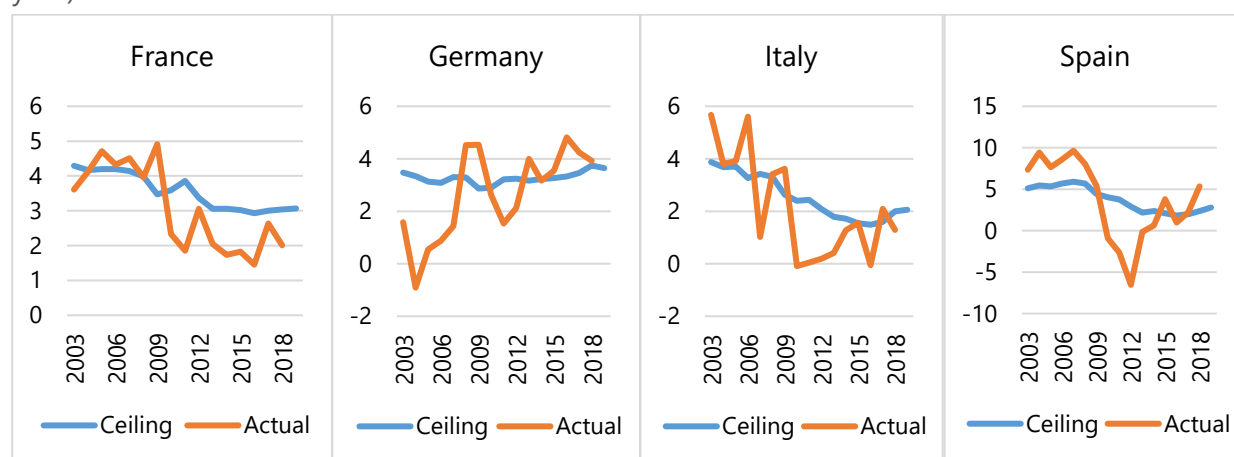
- We do not correct for public investment.

Ceiling:

- We do not correct for debt levels;
- We do not correct for expenditure overruns.

Yet even our simple and partial simulation illustrates the stabilising property of an expenditure rule.

Figure 2: Partial simulation results: actual expenditure growth and real-time ceiling (percent per year)



Source: Bruegel based on total, interest and unemployment general government expenditures data from Eurostat's 'General government expenditure by function (COFOG) [gov_10a_exp]' dataset, and one-off expenditures from the May 2020 (for the period starting in 2010) and May 2014 (for the pre-2010 period) versions of the AMECO dataset.

Note: Nominal public expenditure excluding interest expenditure and unemployment expenditures in the whole period and one-off expenditures in 2009-2012, but no correction is made for discretionary revenue changes and general government investment. The real-time estimate of potential output growth uses the EU's CAM, but a six-year average (covering the preceding five years and the year of estimation) instead of the ten-year average currently used for the EB. The expenditure limit corrects the real-time potential growth estimate with the 2 percent inflation benchmark of the ECB. No correction is made for public debt and expenditure-overrun.

In the pre-crisis period, the analysed simplified expenditure rule would have disciplined Spain, a country that experienced housing booms and rapid increases in pro-cyclical public expenditures. This simplified expenditure rule would also have disciplined Italy, and more so if a public debt correction was also considered, due to Italy's high debt. On the contrary, Germany could have spent more in 2003-07, while spending in France was more or less in line with the rule.

After 2008, all countries reduced actual expenditure growth below the ceiling, applying pro-cyclical fiscal tightening. The expenditure rule would have allowed for more counter-cyclicality in fiscal policies than those that were actually implemented in many EU countries.

For all the reasons discussed so far, we conclude that an expenditure rule would be superior to the current structural budget balance rule as the main operational tool for fiscal policy surveillance in the EU.

3.2. Golden rule

In the terminology of the literature on fiscal rules, a golden rule is a fiscal rule that excludes a measure of capital expenditure²⁹ from the computation of certain fiscal requirements (be it the budget deficit or the expenditure benchmark). The EU fiscal framework already includes a limited golden rule in the form of a so-called ‘investment clause’. This section first compares public investment within and outside the EU and elaborates the possible role of the EU fiscal framework in the very low public investment levels (Section 3.2.1). The EU’s investment clause, and the Italian and Finnish experiences with it, is discussed in Section 3.2.2. This is followed by a discussion of the benefits and drawbacks of golden rules in Section 3.2.3, while Section 3.2.4 recommends an asymmetric golden rule.

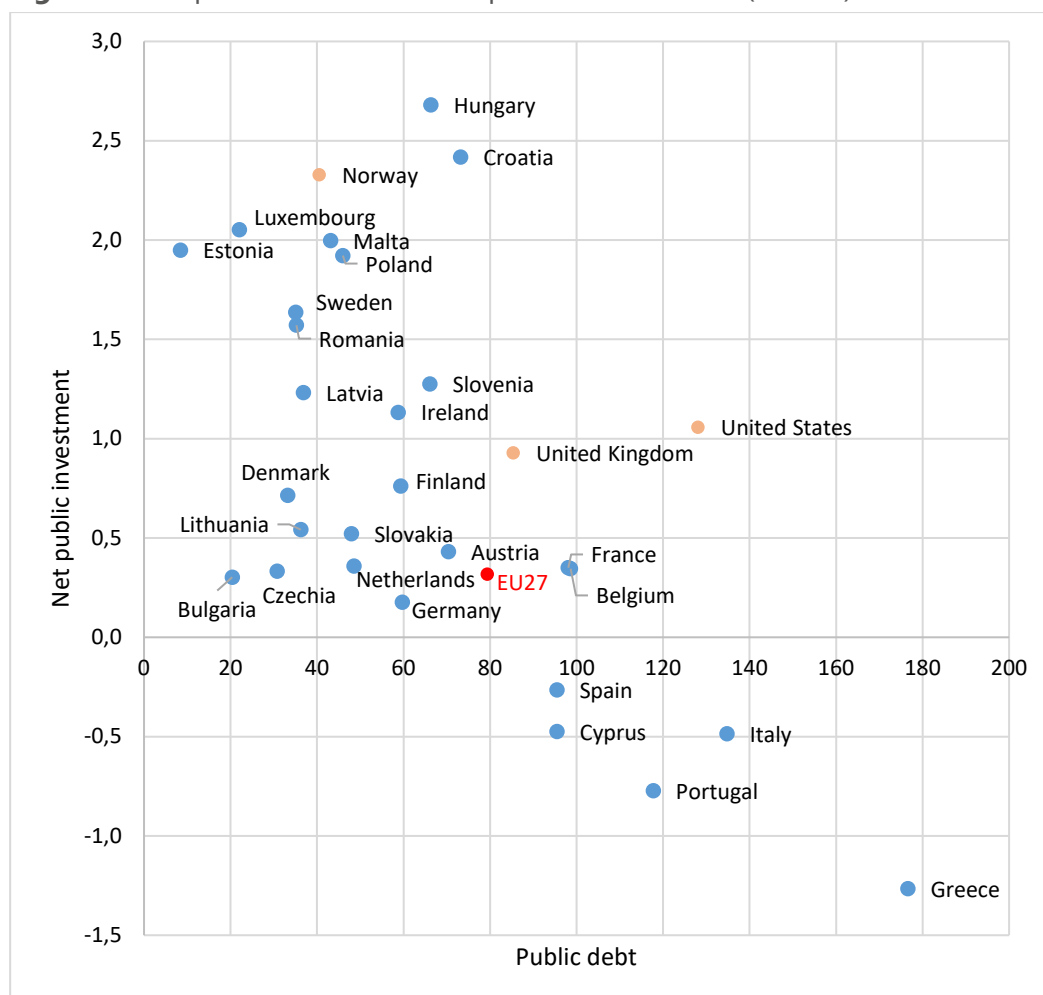
3.2.1. Public investment development and EU fiscal rules

General government fixed capital formation, that for simplicity we refer to as ‘public investment’, was a major victim of European fiscal consolidation efforts after the 2008 global and the subsequent euro-area crises³⁰. Even in 2019, seven years after the peak of the euro crisis, net public investment (which is gross investment minus the depreciation of capital stock) on average in the EU was just a fraction of those in the US and the UK (as a share of GDP, see Figure 3).

²⁹ Proponents of golden rule consider different types of expenditures to exclude: most proposals consider general government fixed investment, while others consider other types of growth-enhancing spending too. Beyond the general government, state owned enterprises might be considered too. Some proponents consider gross investment, others net investment.

³⁰ See, for example, the analyses in Barbiero and Darvas (2013) and EFB (2019a).

Figure 3: Net public investment and public debt in 2019 (% GDP)



Source: May 2020 version of the European Commission's AMECO dataset. Note: for the United States, AMECO reports federal government debt, but for comparability with general government debt reported for European countries, we added US state and local debt to federal debt.

Note: net public investment refers to 'net fixed capital formation of the general government'.

While the optimal level of public investment depends on various factors including the quantity and quality of public capital, the low average EU level of public investment is surprising. Market conditions are also very favourable: several European governments can borrow even at negative interest rates, while others can borrow at rates below the expected inflation rate.

At the same time, there is a large variation in terms on net investment across the EU. In five countries (Greece, Portugal, Italy, Cyprus and Spain), net public investment was negative in 2019, implying that the capital stock was declining. On the other end, net public investment was relatively high in several central European Member States and in Luxembourg and Sweden. Central European countries benefit from large amount of EU structural fund payments, which presumably boost public investment, but Luxembourg and Sweden receive little EU funding.

A recurring question in the debate around the relation between public investments and fiscal rules relates to the last decades' sovereign debt crisis. Did EU fiscal rules encourage pro-cyclical cuts to public investment in during the 2008-2012 crisis period and keep public investment low

in the subsequent recovery years? Or were other factors more important? A thorough examination of this issue would be very demanding, yet Figure 3 provides some elements of the answer.

Countries with higher debt levels tend to have lower public investments (as a share of GDP), while some low-debt countries (Luxemburg and Sweden) have relatively high public investment rates. This could suggest that the fiscal constraints, but not necessarily fiscal rules, limit public investment. Yet public investment is relatively low in Germany and the Netherlands too, two countries with relatively low debt levels and budget surpluses in 2019 well above those required by European fiscal rules. Therefore, low public investment seems to be a political choice in Germany and the Netherlands and an alternative fiscal rule that privileged public investment might have not boosted public investment.

So, what was the role of fiscal rules in high- debt countries? In the massive post-2008 euro-area sovereign debt crisis, countries with high debt levels faced a dual pressure to consolidate their public finances: partly because of strong market pressure, and partly because of the fiscal consolidation requirements under the excessive deficit procedure. It is difficult to disentangle these two effects³¹. If market pressure was the primary reason, then public investment would probably have been cut irrespective of the fiscal rule in place, because the political cost of cutting public investment is presumably lower than that of cutting various entitlement spending. But if the main reason was to obey with the fiscal rule, then the type of rule would have mattered. A golden rule that disregards public investment could have changed the composition of fiscal consolidation if cutting public investment would have had no impact on meeting the fiscal targets. This might have changed the composition of fiscal adjustment, lowering the cuts in public investment.

Whatever was the main reason, fiscal consolidation that concentrates on cutting public investment slows down the recovery, because public investment has been found to have a greater impact on economic growth than most other types of public spending, especially under weak economic conditions³².

A possible way to protect public investments at the expense of cutting other public expenditure could be the introduction of a golden rule broader than the one currently existing in the EU fiscal framework.

3.2.2. The investment clause: too little too seldom

Since 2015, the EU fiscal framework includes a narrow golden rule which is called the 'investment clause'³³. The clause allows for temporary deviations from the MTO (or from the adjustment path

³¹ Research by European Commission (2020) does not find evidence that fiscal rules hamper public investment.

³² See for example Auerbach and Gorodnichenko (2012) and Baum *et al* (2012).

³³ See at: <https://www.consilium.europa.eu/en/policies/stability-growth-pact-flexibility/>

towards it), amounting to at most 0.5% of GDP³⁴, for a period of maximum three years, under the following (rather strict) conditions³⁵:

- GDP growth is forecast to be negative or to remain well below its potential (resulting in negative output gap greater than 1.5% of potential GDP);
- the Member State remains in the preventive arm at the time of the assessment of the application for use of the clause;
- an appropriate safety margin with respect to the 3% of GDP deficit reference value is preserved;
- only national co-financing of projects co-funded by the EU under the Structural and Investment Funds, Trans-European-Network, Connecting Europe Facility and the European Fund for Strategic Investments (EFSI) are allowed;
- the projects financed must have positive, direct and verifiable long-term budgetary effects;
- co-financed expenditure should not substitute for nationally-financed investments, so that total public investments do not decrease;
- the maximum initial distance of the structural balance from the MTO is 1.5% of GDP, so that in the benchmark case of an annual adjustment of 0.5% of GDP, the Member State can achieve its MTO within the four years;
- In the period of adjustment towards the MTO, the clause can be applied only once.

As a result of these restrictive conditions, only two countries, Italy and Finland, have so far applied for the investment clause.

Italy requested a 0.3% of GDP deviation in 2015 for the 2016 budget, of which 0.25% was granted under conditions³⁶, but this flexibility for 2016 was retroactively reduced to 0.21% of GDP in 2017, in light of the investments actually made in 2016, which was lower than planned³⁷. The differences between the requested, the approved and the ex post revised deviations are minor compared to the wide differences in the estimates for the 2016 structural balance, which were -0.81% (in 2015), -1.65% (in 2016), -1.74% (in 2017), -1.42% (in 2018), -1.67% (in 2019) and -1.53% (in 2020).

³⁴ In case the Member State also benefits from the so-called 'structural reform clause' too, then the total cumulative temporary deviation allowed under the two clauses cannot exceed 0.75% of GDP.

³⁵ See the detailed specification on pages 22-25 of the Vade Mecum (European Commission, 2019).

³⁶ The conditions were: (i) the existence of credible plans for the resumption of the adjustment path towards the MTO as of 2017; (ii) the effective use of a deviation from the adjustment path for the purpose of increasing investments; and (iii) progress with the structural reform agenda, taking into account the Council recommendations.

³⁷ Italy's national expenditure on projects co-financed by the European Union and realised in 2016 was approximately EUR 3.5 billion, or 0.21% of GDP (from EUR 4.25 billion initially planned). Note that, in 2016, total public investment in Italy decreased, thus presumptively violating an eligibility criteria of the investment clause. However, as found by the EC, the decrease was largely driven by a drop in EU funding (from EUR 3.1 billion in 2015 to EUR 0.3 billion in 2016). Notwithstanding this drop in EU funding, Italian public investment actually increased (by EUR 1.1 billion).

Finland requested a 0.1% of GDP deviation in 2016 for the 2017 budget, which was granted. The flexibility was retroactively withdrawn in 2018 because outturn data for 2017 showed a decline in public investment in 2017 compared to the previous year, while investments linked to Union funds were estimated to have remained stable. Again, a 0.1% of GDP deviation is dwarfed by the revision of the 2017 structural balance estimates. The 2017 structural balance was estimated at -1.54% in 2016, -1.34% in 2017, -0.14% in 2018, -0.66% in 2019 and -1.12% in 2020.

Overall, extra room for manoeuvre offered by the investment clause was minuscule in the cases of the two countries that applied for it. This fact, along with the very strict criteria for application, brings into question the usefulness of this clause.

3.2.3. Benefits and drawbacks of golden rules

Golden rules are less frequently discussed than expenditure rules, and the views on the desirability of a golden rule differ. For example, Truger (2015) advocates a rule that excludes from the fiscal targets net public investment (as defined in the national accounts) minus military expenditures plus investment grants for the private sector. Bogaert (2016) proposes modifying the formula of the MTOs to factor in net public investment. Claeys *et al* (2019) call for a fundamental revision to the EU fiscal framework including a golden rule, but in the absence of such a revision, call for a revision of the investment clause (to allow for a more permanent exemption for green investment, even in good times). The Bundesbank (2019) on the other hand, argues strongly against it, partly based on an evaluation of the pros and cons, and partly on Germany's unfavourable experience with such a rule (which was in place until 2011).

The main arguments in favour of a golden rule are³⁸:

- inter-generational fairness requires that the cost of public investment should be borne by future generations who will benefit from it and therefore capital expenditure should be financed through debt and not by taxes paid by the current generation;
- in the presence of deficit limits, socially desirable public investment projects may not be undertaken, and a golden rule could help to avoid strategic underinvestment;
- debt-financed productive public investment can improve fiscal sustainability in the medium- to long-term as it can increase potential growth;
- in corporate accounting, the cost of investment is not charged to a single year when the investment is implemented, but distributed across the years of its use: this principle has merits and should be adopted in public sector fiscal rules by an appropriate golden rule (investments are currently smoothed over four years and only for the expenditure benchmark).

On the other hand, the major arguments against a golden rule³⁹:

³⁸ See for example Peletier *et al* (1999), Blanchard and Giavazzi (2004), Turrini (2004), and Barbiero and Darvas (2013).

³⁹ See for example European Commission (2004) and Bundesbank (2019). The difficulty in measuring net public investment, which is the relevant variable for intergenerational equity (because net investment indicates the change in net, i.e. *usabile*, public assets), is also sometimes mentioned as a drawback. We regard this issue as less of a problem, because harmonised taxonomy and accounting rules, greater transparency over public investments and more control

- it could entail maintaining high deficit for long periods;
- the difficulties in deciding about favoured investments which should be granted special budgetary treatment;
- it might create distortions, with favoured investments (such as physical infrastructure) preferred to other forms of capital or current spending that might also be beneficial over the long run; and
- there would be significant incentives to record current expenditure as capital spending.

Against this background, the EFB concludes that further efforts need to be undertaken to improve the quality of public finances and to protect and foster public investment (EFB 2019a, 2019b). The EFB proposes the introduction of a limited golden rule that would exclude specific public investments from the EB, while avoiding overburdening the EU fiscal rules with too many conflicting objectives.

The EFB's variant of the Golden Rules has the following main features:

- In order to avoid EU micro-management, the golden rule would focus on public investments already identified in the EU budget as growth-enhancing and of pan-European value. These include, for example, investments in digital infrastructure and green projects. Member States could voluntarily top-up expenditures on projects beyond their co-financing commitments.
- In order to mitigate the risk of national governments unduly classifying expenditures into the favoured investment category, the golden rule would be monitored by the independent national fiscal institution that would assess the governments' classification of growth-enhancing expenditure. This could reduce the risk that governments unduly classify certain expenditure items as public investment.

Note that the EFB does not specify the share of public investment that would fall under the golden rule, nor whether it would relate to gross or net public investment. We conjecture that the EFB considered gross public investment, since it reports data on gross public investment and does not even mention net public investment in EFB (2019a).

3.2.4. Proposal for an asymmetric golden rule

Due to the conclusions and arguments we put forward in the previous sections, we favour an asymmetric golden rule, as previously proposed in Barbiero and Darvas (2013). Such an asymmetric golden rule would vary along with the business cycle. In bad times (and in the first years of the ensuing recovery phase), the rule would work towards preserving net public investment by excluding it from the fiscal indicators of the SGP. Thereby, cutting public investment would be irrelevant from the perspective of the operational fiscal indicator (adjusted public expenditure growth in our preferred case; structural balance in the case of the current

by the independent fiscal council and the national audit office can reduce measurement uncertainty. Also, the huge uncertainty in output gap and structural balance estimations did not prevent the inclusion of these concepts in the EU's current fiscal framework.

framework). This could lead to a more growth-friendly composition of fiscal consolidation, thereby limiting the fall in output and employment in the recession and recovery phases of the business cycle, and offering better growth prospects for the medium/long-term. The ceiling for expenditure growth and the debt level target should also be amended when the asymmetric golden rule is activated, otherwise excluding net investment from the expenditure aggregate does not create extra fiscal space, just alters the composition of fiscal consolidation.

A crucial issue relates to the activation of the asymmetric golden rule. We do not recommend to base such a decision on the estimated output gap, which is a very unreliable indicator. Instead, the activation could be conditional on the fall in GDP and the golden rule could remain in place for, say, three years. In any case, the activation should be based on a proposal by the Commission, which should be informed by the opinion of the national and European fiscal councils (see our proposed institutional framework in section 3.3 below).

But a golden rule should also account for the perverse incentives it may create in good times, such as an excessive preference for physical infrastructure (or any other component of public spending which are exempted under the golden rule) over other growth-related expenditure. That is why we propose that, as an economic recovery turns to an expansion, the extra fiscal space for public investment be gradually eliminated, for example, in equal steps over a period of three years. Thereby, the rule would limit the accumulation of persistent budget deficits.

Irrespective whether a golden rule is introduced or not, we also advocate for a change in the way gross public investments are smoothed over time. Public investments can vary substantially from year to year. For example, when a significant infrastructure project starts, public investment in that year can be very large and small in subsequent years. In the current EB calculations, public investments are smoothed over a four-year period. This is a step in the right direction, but there is a better solution. The best way to treat public investment mirrors the way private companies treat private investment: the cost of the investment should be spread over all of its service life.

The incorporation of our proposed asymmetric golden rule should be accompanied by the harmonisation of EU accounting and reporting practices concerning public investment. The investment budget of the government should be separated from the current budget and the transparency of public investments should be increased. The role of national independent fiscal council in the process should be strengthened, along with the EFB suggestion.

3.3. Institutional setup

While this study focuses on the content of the fiscal rules, the institutional framework for overseeing the rules is just as important. All the various contributions to the reform of the fiscal framework suggest changes to the institutional framework. We discuss three aspects.

First, most contributions suggest strengthening the role of national independent fiscal councils, provided that their minimum standards are raised. Jankovics and Sherwood (2017) document the significant differences between fiscal councils across the Member States in terms of the breadth of their mandates, their resources and their visibility in public debates. These differences suggest that some of them are fairly efficient, while others are barely noticeable. They should be independent, competent and effective (OECD, 2016). They could be entrusted with making

recommendations on how to correct fiscal policies that violate EU rules. This would spare the Commission from being criticised and increase the sense of national ownership of recommendations. Member States might approve such a change in exchange for reduced Commission's intrusion.

Second, some contributions recommended the establishment of a European Fiscal Council (EUFC)⁴⁰. The EUFC would have a structure similar to the ECB's Governing Council: about six executive board members (with the same appointment and accountability procedures as for ECB executive members), plus the heads of national fiscal councils. The EUFC's mandate should be to safeguard the proper implementation of the fiscal framework, with a focus on gross errors and cross-border spillovers. EUFC decisions would not be binding, but decisions would be made public in a timely manner, providing a major input into the Commission's fiscal recommendations proposed to the Council. The EFB has a different mandate, and different appointment and accountability procedures, compared to what we recommend for the EUFC.

Third, several contributions, including the EFB's, highlight that financial sanctions for non-compliance with the EU fiscal framework do not work. Fines face a time consistency problem: *ex ante*, everyone agrees that credible sanctions are important to enforce the SGP, but once the SGP is violated, imposing a sanction might do more political and economic harm than good. Instead, mixing various instruments would be preferable, related to surveillance, positive incentives, market discipline and increased political cost of non-compliance. For example, making access to funds from a potential central fiscal capacity conditional upon compliance with the EU fiscal rules could improve compliance, as suggested by EFB (2019a) and Darvas *et al* (2018). Access to a low-cost European Stability Mechanism credit line is another incentive to observe the rules (Benassy-Quéré *et al*, 2018), which already exists⁴¹. Stronger market discipline via the issuance of junior bonds in the case of non-compliance would be a powerful disincentive to deviate from the rule (Benassy-Quéré *et al*, 2018). The political cost of deviations could be increased by the requirement of the finance minister to publicly testify in front of the national parliament and in front of the European Parliament when the breach is serious⁴².

3.4. Remarks on fiscal rules in the context of a major external shock

Numerical rules cannot advise fiscal policy in the face of extraordinary external shocks such as the coronavirus pandemic of 2020. The virus hit governments two ways: tax revenues are depressed and fiscal spending increased due to discretionary stimulus measures, which are made possible by the activation of the general escape clause of the EU fiscal framework⁴³ and the

⁴⁰ For example, Claeys *et al* (2016) and Darvas *et al* (2019).

⁴¹ https://www.esm.europa.eu/sites/default/files/esm_guideline_on_precautionary_financial_assistance.pdf

⁴² The EP already has the right to invite a representative from a MS that is under EDP. We propose that this tool should be used actively.

⁴³ See 20 March 2020 Commission proposal: https://ec.europa.eu/commission/presscorner/detail/en/ip_20_499, and the endorsement by the Council three days later: <https://www.consilium.europa.eu/en/meetings/ecofin/2020/03/23/>

temporary state-aid framework⁴⁴. As a consequence, budget deficits and public debts balloon. However, unlike what was experienced in the aftermath of the 2008 global financial crisis, even Member States with vulnerable fiscal positions are not cutting spending and public investment (to our knowledge at the time of writing). On the contrary, they are adopting discretionary stimulus measures, though to a much smaller extent than Member States with low public debts⁴⁵. Most likely, concerns on public debt sustainability limit the discretionary stimulus measures in Member States with vulnerable fiscal positions.

There are major uncertainties around the depth and the duration of the recession, the speed and structure of the subsequent recovery, and the impact of ballooning public debts on sovereign solvency.

Once the public health crisis abates and economic activity resumes, fiscal rules will be re-activated. Excessive deficit procedures may be launched for many EU countries. But in the face of extreme uncertainty around structural budget balances and output gaps estimates, the current fiscal framework will be especially hard to implement and defend. We cannot exclude the possibility that the matrix defining the required adjustment in the structural balance (Table 1) will be adjusted in light of the new realities. If a second, but less severe, recession comes and the general escape clause will not be activated again, the current framework may not allow a new fiscal stimulus, which could prolong the recession.

We believe that the revision of the EU fiscal framework proposed in this study would better equip governments to address the post-covid recovery phase than the rules as they stand today. In particular, a forward looking five- or seven-year-ahead debt target and the corresponding public expenditure growth path would balance the need for fiscal consolidation and fiscal support to the economy. The built-in stabilisation features of the proposed expenditure rule would allow the automatic (economic cycle-driven) component of fiscal policy to adjust, if the speed of recovery deviates from the assumptions that were used to set the public debt reduction path.

The period of EU fiscal rule suspension should be used to discuss, agree on and adopt the reform so that the new fiscal framework will apply when the COVID-induced suspension ends.

⁴⁴ https://ec.europa.eu/commission/presscorner/detail/en/ip_20_496

⁴⁵ See Anderson *et al* (2020).

4. CONCLUSIONS AND RECOMMENDATIONS

This study analysed the EU fiscal framework's structural balance and expenditure rules, and the various proposals for refocusing the fiscal framework on an expenditure rule and a golden rule.

Main findings

- In accordance with EU regulation, the expenditure benchmark (EB) is subordinate to the structural balance (SB), because the EB is only used to evaluate sufficient progress towards the medium-term objective (MTO) expressed in terms of the SB, or in rare cases when a country is exactly at the MTO. The EB does not matter once a country's SB has reached a higher level than its MTO. Nevertheless, in 2016 the Commission and Council agreed to give a more prominent role to the EB.
- The European Fiscal Board (EFB) highlighted an increasingly widespread tendency to adjust the EB in an *ad-hoc* manner to lower the consolidation requirement.
- In some cases, the European Commission has used alternative potential growth estimates by questioning the appropriateness of the Commonly Agreed Methodology in its assessment of compliance with the rules of the preventive arm of the SGP.
- We find that the Commission has adopted a generally lenient approach in cases of conflict between the EB and SB criteria in the preventive arm of the SGP. In the large majority of cases, 'compliance' was concluded when only one of the two indicators was in deviation. Significant Deviation Procedures was not initiated when the EB suggested 'significant deviation'.
- The structural budget balance – that is, the budget balance which excludes the impact of the economic cycle and one-off fiscal measures – is a sensible theoretical concept, but its estimation is subject to massive uncertainty.
- The average one-year revision of the real-time estimate for the change in SB was between half and one percent of GDP in the 2010-2019 period, which is very large given that the baseline fiscal adjustment requirement is half a percent of GDP for countries not yet at their MTO.
- The average revision to medium-term (i.e. 10-year average) potential growth was between 0.1-0.6 percentage points in 2010-2018. This uncertainty has a smaller impact on the budget balance, also because primary public expenditures (which are subject to the EB) account for about 45 percent of GDP across the EU.
- The range of the SB estimates made by the Commission, IMF and OECD is 1.0-1.2 percent of GDP, suggesting large uncertainty, while the range of medium-term potential growth estimates is much narrower at about 0.2-0.3 percentage points.
- Earlier research confirmed the pro-cyclicality of potential output and structural balance estimates.

- We studied the May 2020 estimate revisions and found that the budget balance implications of the pro-cyclical revisions in the structural balance estimates is about four times larger than pro-cyclical revision of the medium-term potential growth estimates⁴⁶.
- There are many strong arguments for reforming the EU fiscal framework. There is a growing consensus in the literature on the benefits of an expenditure rule. The main advantages of dropping SB rules and focusing on an expenditure rule, which would be anchored to a country-specific medium-term (e.g. 5 or 7 years) debt reduction target, are:
 - Unlike the structural balance, public expenditures are observable in real time and are directly controlled by the government;
 - The uncertainty surrounding the medium-term potential growth rate estimate (10-year average potential growth rate), which is used for the expenditure growth ceiling, is several factors smaller than the uncertainty around the SB estimate;
 - Anchoring expenditure ceilings to a medium-term debt reduction target lessens the importance of the medium-term potential growth rate in the determination of the required expenditure ceilings;
 - Anchoring expenditure ceilings to a medium-term debt reduction target would smooth the transition from the current framework to the new framework;
 - The expenditure rule has an 'embedded' cyclical stabilisation property;
 - The expenditure rule mitigates an important source of pro-cyclicality in the current rules.
- Public investment was a major victim of European fiscal consolidation efforts after the 2008 global and the subsequent euro-area crises. Even in 2019, net public investment (which is gross investment minus the depreciation of capital stock) on average in the EU was just a fraction of that in the US and the UK (as a share of GDP).
- Countries with high public debts tend to invest less, while some countries (such as Germany and the Netherlands) with relatively low public debts invest little, which seems to be a political choice not related to fiscal rules. It is an open question whether fiscal rules or market pressure influenced public investment cuts in high-debt countries in times of fiscal consolidation.
- The activation of the current EU investment clause requires very restrictive conditions. The only two cases of the activation of this clause allowed miniscule deviations in SB compared to the huge revisions of the SB, questioning the usefulness of this clause.
- Golden rules are less discussed than expenditure rules, and views on the desirability of a golden rule differ. The possible main advantages (inter-generational fairness, avoiding strategic underinvestment, productive public investment ultimately improving fiscal sustainability through growth-boosting effects, applying sensible corporate accounting

⁴⁶ A pro-cyclical revision means that the estimate is revised in the same direction as the revision of the economic outlook.

principles to public investment) are at least partially outweighed by possible drawbacks (maintaining high deficits for long periods, difficulty in deciding about favoured investments, undue preference for favoured investments, incentive to record current expenditure as capital spending). We therefore prefer a golden rule which is asymmetric over the business cycles: it provides extra fiscal space in times of a recession, but not in times of expansion.

- Activation of this proposed asymmetric golden rule should not depend on the unreliable estimate of the output gap, but instead on statistical data on GDP contraction, after an assessment by national and European fiscal councils, and should be based on a recommendation by the Commission.
- The institutional framework for overseeing the rules is just as important as the rules themselves. There is a growing consensus in favour of strengthening the roles of national independent fiscal councils, while some authors have proposed the establishment of a European Fiscal Council with a structure similar to the ECB's Governing Council. Several contributions highlight that financial sanctions for non-compliance with the EU fiscal framework do not work.
- We believe that the revision of the EU fiscal framework proposed in this study would better equip governments to address the post-COVID-19 recovery phase, compared to the rules as they stand today.

Recommendations

- We recommend the reporting of the EB and the corresponding expenditure aggregate, also when the MTO has been exceeded.
- We recommend the publication of the confidence intervals of the Commission's potential output, output gap, medium-term potential growth and structural balance estimates.
- We recommend changing the EU fiscal framework to include the following main elements:
 - Anchor: five-year ahead or seven-year ahead debt ratio change objective, to be set by a joint effort of the government of the country concerned, the national fiscal council, the European Fiscal Council and the European Commission, and be approved by the Council;
 - Operational target: multi-year ahead ceilings for public expenditure corrected for discretionary⁴⁷ unemployment expenditure, interest expenditure and discretionary revenue changes, while public investment is treated as discussed in the next point;
 - Public investment: an asymmetric golden rule that excludes net public investment from the considered expenditure aggregate only in bad times, in a way to create extra fiscal space. This extra fiscal space would be gradually eliminated as the recovery strengthens. Current and investment budgets are separated. Investment costs are distributed over the entire service-life. Activation of the asymmetric

⁴⁷ Discretionary changes refer to changes resulting from the decisions of the authorities.

- golden rule should be based on the contraction of economic output, and the opinion of national and European fiscal councils and the European Commission;
- Ceiling for the operational target: compatible with the debt ratio objective;
 - Institutional framework: strengthened independent national fiscal councils with increased minimum standards and establishment of a European Fiscal Council with a structure similar to the European Central Bank's Governing Council, while the Commission remains the institution that proposes recommendations to the Council of Ministers for adoption;
 - Financial sanctions: to be replaced with various instruments related to surveillance, positive incentives, market discipline⁴⁸ and increased political cost of non-compliance; and
 - A general escape clause: instead of the current general escape clause and the additional complex web of exceptions, a single general escape clause (possibly applied to each member state separately) could be triggered by the Council of Ministers, based on the recommendation of the Commission, which would take into account the opinions of the independent national fiscal council and the European Fiscal Council.
- In order to adopt our proposal, legislative changes are needed to the Six-Pack regulations and the Fiscal Compact⁴⁹.

⁴⁸ Market discipline means that the interest rate at which governments can borrow from the market is sensitive to markets' assessment of public debt sustainability, that is, interest rates go up as markets' trust in fiscal sustainability weakens.

⁴⁹ See the last section of Darvas *et al* (2018) for a detailed discussion.

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ANNEX

Quantitative analysis of the Commission's assessment of Member States' compliance with the preventive arm of the Stability and Growth Pack

We analysed all the assessments published in the 2015-2019 surveillance cycles. We focused on ex post compliance assessments (for example, the assessments made in 2019 of compliance in 2018).

- In all 6 cases when, in 2014-2018, the EB benchmark was breached but the SB change rule was not, the conclusion was more lenient than what the EB suggested (Panel A, Table 3).⁵⁰

Indicator deviation	Commission's conclusion
1 case of some EB deviation	compliance
2 cases of significant EB deviation	some deviation
3 cases of some EB deviation	some deviation

- Among the 14 cases when the structural balance change rule was breached, but the EB not in 2014-2018, the conclusion was more lenient than what the structural balance suggested in 12 cases (Panel B, Table 3):

Indicator deviation	Commission's conclusion
1 case of significant SB change deviation	compliance
9 cases of some SB change deviation	compliance
2 cases of significant SB change deviation	some deviation
2 cases of some SB change deviation	some deviation

⁵⁰ Note that, as per the Regulations mentioned above, the EB benchmark is not considered in the assessment of progress towards the MTO in cases where MTO is reached (even when EB suggests significant deviation). Therefore we only look at cases where MTO is not reached.

We also highlight that in all cases when the EB suggested 'significant deviation' and the structural balance change rule suggested 'some deviation', the final conclusion was 'some deviation' and therefore the Significant Deviation Procedures was not initiated.

Table 3: Commission's ex post assessments (at "t+1") of compliance (at "t") with the preventive arm of the stability and growth pact when the structural balance rule and the expenditure benchmark rule led to conflicting conclusions.

A) Cases where the expenditure benchmark was binding

Country	Year	MTO	Structural balance based on freezing (1)	Position vis-à-vis the MTO (2)	Deviation from the structural balance change rule (3)	Deviation from the expenditure benchmark multiplied by minus one (4)	Commission conclusion
Austria	2018	-0.5%	-0.8%	At or above the MTO	0.6%	-0.3%	Compliant
Finland	2018	-0.5%	-0.8%	At or above the MTO	0.2%	-0.2%	Compliant
Portugal	2018	0.3%	-0.90%	Not at MTO	0.3%	-1.5%	Some deviation
United Kingdom	2018	-0.8%	-1.70%	Not at MTO	0.3%	-0.4%	Some deviation
Belgium	2017	0.0%	-1.50%	Not at MTO	0.3%	-0.4%	Some deviation
Portugal	2017	0.3%	-1.80%	Not at MTO	0.3%	-0.5%	Some deviation
Slovakia	2017	-0.5%	-1.40%	Not at MTO	0.4%	-0.1%	Compliant
Slovenia	2017	0.3%	-1.60%	Not at MTO	0.0%	-0.7%	Some deviation
Austria	2016	-0.5%	-0.9%	At or above the MTO	0.1%	-0.4%	Some deviation
Latvia	2016	-1.0%	-0.7%	At or above the MTO	0.9%	-0.2%	Compliant
Lithuania	2015	-1.0%	-0.4%	At or above the MTO	0.9%	-0.5%	Compliant
Austria	2014	-0.5%	-0.4%	At or above the MTO	0.1%	-1.5%	Compliant
Estonia	2014	0.0%	0.2%	At or above the MTO	0.7%	-2.0%	Compliant

B) Cases where the structural balance change rule was binding

Country	Year	MTO	Structural balance based on freezing (1)	Position vis-à-vis the MTO (2)	Deviation from the structural balance change rule (3)	Deviation from the expenditure benchmark multiplied by minus one (4)	Commission conclusion
Finland	2016	-0.5%	-0.9%	Not at MTO	-0.1%	0.5%	Compliant
Italy	2016	0.0%	-1.6%	Not at MTO	-0.4%	0.1%	Compliant
Poland	2016	-1.0%	-2.2%	Not at MTO	-0.4%	0.0%	Some deviation
Slovenia	2016	0.0%	-1.7%	Not at MTO	-0.2%	0.0%	Compliant
Belgium	2015	0.75%	-2.3%	Not at MTO	-0.4%	0.1%	Some deviation
Denmark	2015	-0.5%	-0.50%	At or above the MTO	-0.3%	0.2%	Compliant
Ireland	2015	0.0%	-2.0%	Not at MTO	-0.5%	0.7%	Compliant
Italy	2015	0.0%	-0.7%	Not at MTO	-0.1%	0.2%	Compliant
Poland	2015	-1.0%	-2.3%	Not at MTO	-0.2%	0.3%	Compliant
Bulgaria	2014	-1.0%	-1.50%	At or above the MTO	-1.5%	1.0%	Some deviation
Finland	2014	-0.5%	-0.90%	At or above the MTO	-0.8%	0.3%	Some deviation
Hungary	2014	-1.7%	-2.20%	At or above the MTO	-0.4%	0.3%	Compliant
Italy	2014	0.0%	-0.8%	Not at MTO	-0.1%	0.2%	Compliant
Slovakia	2014	-0.5%	-2.0%	Not at MTO	-0.2%	0.8%	Compliant

Source: Commission's assessments of stability and convergence programmes, available at: https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/stability-and-growth-pact/stability-and-convergence-programmes_en

Note: assessments of compliance in the previous year is reported, for example, the 2019 assessment whether the country complied in 2018. Colour codes:

	Compliant
	Not compliant
	Some deviation
	Significant deviation

(1) Under the preventive arm of the SGP, the requirements in terms of the change in the structural balance and the expenditure benchmark for year t are set on the basis of the Commission's spring forecast of year t-1 and kept unchanged, or "frozen" afterwards (see European Commission, 2018, Box II.4.1: Freezing principle and unfreezing modalities, Report on Public Finances in EMU, p. 59). (2) Based on the relevant adjusted structural balance at year t-1. (3) One-year deviation from the required adjustment: The difference of the change in the structural balance and the required adjustment (corrected for the clauses, the possible margin to the MTO and the allowed deviation in case of overachievers). (4) One-year deviation adjusted for one-offs: Deviation of the growth rate of public expenditure (net of discretionary revenue measures and revenue increases mandated by law) from the applicable reference rate in terms of the effect on the structural balance. The expenditure aggregate used for the expenditure benchmark is obtained following the commonly agreed methodology. A negative sign implies that expenditure growth exceeds the applicable reference rate.

In the context of the review of the EU economic governance framework, this study examines two particular issues. First, whether an expenditure rule would be more reliable than a structural budget balance rule as the main operational tool for fiscal policy surveillance in the EU. Second, the possible benefits and drawbacks of introducing a golden rule to exclude certain types of investments from the operational fiscal rule are analysed. The study recommends revisions to the EU fiscal framework.

This document was provided by the Economic Governance Support Unit at the request of

